



Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

Memorandum

To: Lisa Hurley
Fiscal Programming Section Supervisor

From: Heidy Bruner, P.E.
Engineering Services Supervisor
Environmental Services

Date: January 27, 2016

Subject: Categorical Exclusion (C) Determination
SF 149 SOMERS SFTY IMPRV
HSIP 5-3(133)103
UPN 8910000

Environmental Services has reviewed the proposed project and concluded that it will not involve unusual circumstances as described under 23 CFR 771.117(b). As a result, the project qualifies as a Categorical Exclusion under the provisions of 23 CFR 771.117(c), part (8) which describes installation of fencing, sign, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

The purpose of the project is to address rear end crashes related to pedestrians crossing the roadway. The project is needed to enhance roadside safety for the traveling public. The proposed project is to install a rectangular rapid flashing beacon and upgrade the existing crosswalk pavement markings on US-93 (N-5) in Somers between reference post 102.5 and reference post 102.75. The attached Preliminary Field Review Report/Scope of Work Report provides a location map and a more complete project description. This proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, M.C.A.).

In accordance with the Federal Highway Administration's (FHWA) letter of March 29, 1999, please notify FHWA that the proposed action is being processed in accordance with 23 CFR 771.117(c).

Attachment

e-copies: Ed Toavs, District Administrator- Missoula
Roy Peterson, P.E., Traffic and Safety Engineer
Gabe Priebe, P.E., Traffic Project Engineer
Robert Stapley, Right-of-Way Bureau Chief
Suzy Price, P.E., Contract Plans Bureau Chief
Tom Martin, P.E., Environmental Services Bureau Chief
Susan Kilcrease, Missoula Project Development Engineer
Gene Kaufman, P.E., FHWA Operations Engineer
Tom Erving - Fiscal Programming Section
Montana Legislative Branch Environmental Quality Council

Copy: Environmental Services Bureau File



Montana Department of Transportation

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Memorandum

To: Distribution
From: Roy Peterson, P.E. [RAP]
Traffic and Safety Engineer
Date: January 8, 2016
Subject: SF 149 SOMERS SFTY IMPRV
HSIP 5-3(133)103
UPN 8910000
Work Type 411 - Signing, Pavement Markings, Chevrons, Etc.

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on [Jan 12, 2016]

We request that those on the distribution review this report and submit your concurrence within two weeks of the approval date.

Your comments and recommendations are also requested if you do not concur or concur subject to certain conditions. When all personnel on the distribution list have concurred, and the environmental documentation is approved, we will submit this report to the Preconstruction Engineer for approval.

I recommend approval:

Approved _____ Date _____

Distribution:

- Ed Toavs, Missoula District Administrator
Kent Barnes, Bridge Engineer
Lesly Tribelhorn, Highways Engineer
Roy Peterson, Traffic and Safety Engineer
Robert Stapley, Right-of-Way Bureau Chief
Tom Martin, Environmental Services Bureau Chief
Lynn Zanto, Rail, Transit, & Planning Division Administrator
Kevin Christensen, Construction Engineer
Matt Strizich, Materials Engineer
Jon Swartz, Maintenance Division Administrator

cc:

- Gabe Priebe EPS Project Manager, Missoula District
Traffic and Safety File

e-copies:

Located at the end of this document



Montana Department of Transportation

PO Box 201001
Helena, MT 59620-1001

Memorandum

To: Roy Peterson, P.E.
Traffic and Safety Engineer

From: Gabe Priebe, P.E. [GBP]
Traffic Project Engineer

Thru: Ivan Ulberg, P.E. [IBU]
Traffic Design Engineer

Date: January 8, 2016

Subject: SF 149 SOMERS SFTY IMPRV
HSIP 5-3(133)103
UPN 8910000
411 - Signing, Pavement Markings, Chevrons, Etc.

Please approve the attached Preliminary Field Review Report/Scope of Work Report.

Approved [Signed by RAP] Date [Jan 12, 2016]
Roy Peterson
Traffic and Safety Engineer

The same report is also being distributed under a separate cover as a Scope of Work Report for comments and approval recommendations.

cc (w/attach.):
Damian Krings, Road Design Engineer
Traffic and Safety File

Preliminary Field Review/Scope of Work Report

SF 149 SOMERS SFTY IMPRV, HSIP 5-3(133)103, 8910000

EPS Project Manager: Gabe Priebe

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Introduction

A preliminary field review (PFR) office meeting was held on July 28th and 29th, 2015 for this project in conjunction with other Safety projects in the Kalispell area. The following attended.

Shane Stack, Missoula District Preconstruction Engineer (via phone – office only)

James Freyholtz, Traffic Engineer – Kalispell

Gabe Priebe, Traffic Project Engineer, Traffic & Safety – Helena

Daniel Birlut, Traffic Safety Designer, Traffic & Safety - Helena

Dan Cunningham, Electrical, Traffic & Safety – Helena

Eric Matye, Traffic Signing – Helena

Dan Truesdell, Traffic Geometrics – Helena

Gary Engman, Kalispell Maintenance (office only)

Dennis Oliver, Kalispell Maintenance (office only)

Proposed Scope of Work

The proposed project has been nominated to provide enhanced safety by installing a rectangular rapid flashing beacon and upgrading the existing crosswalk pavement markings. The Safety Engineering Section identified crash clusters within this segment of highway and recommended the proposed work as a cost-effective countermeasure.

Purpose and Need

The purpose of the project is to address rear end crashes related to pedestrians crossing the roadway. The project is needed to enhance roadside safety for the traveling public.

Project Location and Limits

The project is located on US-93 (N-5) in Somers between reference post 102.5 and reference post 102.75. The project is in Flathead County within Sections 26 and 27 of Township 27N, Range 21 West.

Work Zone Safety and Mobility

At this time, Level 3 construction zone impacts are anticipated for this project as defined in the Work Zone Safety and Mobility (WZSM) guidance. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP). These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Physical Characteristics

US-93 was reconstructed with project F 191 19 in 1963 and later improved with project SFCN 5-2(141)93 in 2006. According to the TIS Roadlog, the surfacing consists of 0.7 feet of plant mix over 1.3 feet of base course. The roadway top width is 43 feet and consists of two 12 foot through lanes, a 12 foot left turn lane and two approximately 4 foot shoulders.

The US-93 horizontal alignment contains a slight (250 foot long) horizontal curve at the pedestrian crossing location with a radius of 2,865 feet and a deflection angle of approximately 5 degrees. The curve/crossing is situated between two tangents inside of longer horizontal curves, the closest being to the west (south) of the crossing. The sight distance for motorists to see pedestrians and stopped vehicles at the crosswalk is approximately 1,200 feet for northbound traffic and 1,500 feet for southbound. Utility poles and rock cuts somewhat limit visibility of pedestrians standing north of the highway for southbound motorists.

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EPS Project Manager: Gabe Priebe

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The US-93 profile contains an 800 foot sag vertical curve near the crossing with an algebraic difference in grades of approximately 3.6%. There are no apparent sight distance concerns related to the roadway profile.

Traffic Data

The traffic data listed below is for US-93 between RP 102.5 and 102.75

2015 AADT	=	7,970 (Present)
2016 AADT	=	8,050 (Letting Year)
2036 AADT	=	9,820 (Design Year)
DHV	=	1,280
T	=	4.1%
EAL	=	179
Growth Rate (Annual)	=	1.0%

Crash Analysis

The Montana Highway Patrol records indicate a total of 9 crashes along this section of roadway for the dates January 1, 2010 through December 31, 2012. The main crash trend is rear end collisions related to the pedestrian crossing in Somers (4 crashes). Of these crashes, 2 involved a northbound vehicle being rear-ended while yielding to pedestrians crossing the roadway, and 2 involved a southbound vehicle being rear-ended while yielding to pedestrians crossing the roadway. The remaining crashes either occurred in or were related to a private driveway approach. Three of these crashes resulted in a rear end collision, one left turn opposite direction collision, and one road departure overturning crash on a curve.

All four of the crashes occurring at the pedestrian crossing were considered to be addressable with the installation of a rectangular rapid flashing beacon and upgrading the existing crosswalk pavement markings with thermoplastic.

The four addressable crashes resulted in two non-incapacitating injury crashes resulting in 4 total injuries and 2 property damage only crashes. The safety improvements in this area yielded a benefit-to-cost ratio of 3.83, assuming a project cost of \$38,500.

There have been 3 additional crashes within the study area for the time frame January 1, 2013 through September 22, 2015. Of these crashes, two crashes occurred at or near the pedestrian crossing in Somers and one rear-end collision at the Somers Boat Launch. The two crashes occurring at or near the pedestrian crossing were considered to be addressable with the proposed improvements. Both of these crashes involved a southbound vehicle. One involved southbound vehicle striking a pedestrian west of the marked crosswalk and the other involved a southbound vehicle being rear-ended while yielding to pedestrians in the crosswalk. The severity of the addressable crashes resulted in an incapacitating injury crash with one injury and a property damage only crash.

Major Design Features

- a. **Design Speed.** The geometric design criteria for Rural Principal Arterials (National Highway System) indicate that the design speed should be 60 mph based on rolling terrain. The posted speed limit is 45 mph.
- b. **Horizontal Alignment.** The horizontal alignment will not change with this project.

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- c. **Vertical Alignment.** The vertical alignment will not change with this project.
- d. **Typical Sections and Surfacing.** The typical section will not change with this project.
- e. **Geotechnical Considerations.** No geotechnical involvement is anticipated.
- f. **Hydraulics.** No Hydraulic involvement is anticipated.
- g. **Permanent Erosion and Sediment Control (PESC) Features.** No PESC measures are anticipated.
- h. **Bridges.** There are no bridges on the project.
- i. **Traffic.** Traffic will be responsible for all plan preparation activities. Signing and striping plans will include updated pedestrian crossing signing, updated advance pedestrian crossing signing, and updated crosswalk markings. Electrical plans will include solar powered RRFB assemblies.
- j. **Pedestrian/Bicycle/ADA.** No ADA upgrades are proposed. The existing pedestrian circulation route will not be altered with the installation of the RRFB.
- k. **Miscellaneous Features.** No Miscellaneous features are proposed.
- l. **Context Sensitive Design Issues.** No context sensitive design issues are proposed.

Other Projects

There does not appear to be any projects that will be under construction that could affect this project. The project may be tied with another nearby project for construction.

Location Hydraulics Study Report

No LHSR is required.

Design Exceptions

No design exceptions are anticipated.

Right-of-Way

No new right-of-way is anticipated.

Access Control

No access control changes are anticipated.

Utilities/Railroads

No railroads or utilities are expected to be affected by this project.

Maintenance Items

No maintenance involvement is anticipated.

Intelligent Transportation Systems (ITS) Features

The proposed RRFB is considered an ITS feature.

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Survey

No survey is required.

Public Involvement

The project will include a 'Level A' standard of public involvement. This is proposed to include a letter of intent and News Release explaining the project and including a department point of contact.

Environmental Considerations

A Categorical Exclusion is anticipated. No other environmental concerns were identified.

Energy Savings/Eco-Friendly Considerations

No special energy savings or eco-friendly considerations are anticipated.

Experimental Features

No experimental features are anticipated.

Traffic Control

A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP) is appropriate for this project. Any necessary signing and/or flagging operations will be conducted in accordance with the Manual on Uniform Traffic Control Devices.

Preliminary Construction Cost Estimate

The estimate below is based on information provided during nomination and will be refined as design progresses.

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
RRFB, signing	\$15,669		
Traffic Control	\$2,500		
Subtotal	\$18,169		
Mobilization (10%)	\$1,817		
Subtotal	\$19,986		
Contingencies (10%)	\$1,999		
Total CN	<u>\$21,985</u>	<u>\$3,521</u>	<u>\$28,150</u>
CE (10%)	<u>\$2,199</u>	<u>\$352</u>	<u>\$2,815</u>
TOTAL CN+CE	<u>\$24,184</u>	<u>\$3,873</u>	<u>\$30,965</u>

Note: Inflation is calculated in PPMS to the letting date. If there is no letting date, the project is assumed to be inside the current TCP and is given a maximum of 5 years until letting. IDC is calculated at 10.37% as of FY 2016.

Preliminary Engineering

The nominated PE amount should be enough to complete the project.

Project and Risk Management

Gabe Priebe will be the Project Design Engineer. This project is not a PoDI project by FHWA. It is expected the overall level of risk is low to project costs and schedule.

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Ready Date

Ready and letting dates will be established after OPX-2 over-rides have been completed.

Site Map



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EPS Project Manager: Gabe Priebe

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e-copies:

Dustin Rouse, Preconstruction Engineer	Jake Goettle, Construction Bureau – VA Engineer
Highways Design Engineer	Steve Giard, Acting Utilities Engineering Manager
Dave Hedstrom, Hydraulics Engineer	David Hoerning, Lands Section Supervisor
Bryce Larsen, Supervisor, Photogrammetry & Survey	Greg Pizzini, Acquisition Section Supervisor
Danielle Bolan, Traffic Operations Engineer	Joe Zody, R/W Access Management Section Manager
Ivan Ulberg, Traffic Design Engineer	Jim Davies, Pavement Analysis Engineer
Kraig McLeod, Safety Engineer	Darin Reynolds, Surfacing Design Supervisor
Chad Richards, Engineering Cost Analyst	Jeff Jackson, Geotechnical Engineer
John Pirre, Engineering Information Services	Paul Johnson, Project Analysis Bureau
Jan Nessel, Public Involvement Officer	Jean Riley, Planner
Sue Sillick, Research Section Supervisor	Dawn Stratton, Fiscal Programming Section
Suzy Price, Contract Plans Bureau Chief	Bill Semmens, Environmental Resources Section Supervisor
Alyce Fisher, Fiscal Programming Section	Kurtis Miros, Engineering Division
John McClafferty, Engineering Division	Sheila Ludlow, Bicycle/Pedestrian Coordinator
Shane Stack, Preconstruction Engineer	Justun Juelfs, Maintenance Chief
Mike Dodge, Materials Lab	Susan Foley, Right of Way Design Supervisor
Maureen Walsh, Right of Way Supervisor	Dean Jones, Construction Ops Engineer
Robert Vosen, Construction Engineer	Christopher Hardan, Bridge Area Engineer
Kenneth Yahvah, Hydraulics Engineer	Brett Boundy, Geotechnical Manager
Gabe Priebe, Traffic Project Engineer	Susan Kilcrease, Project Development Engineer
Joe Weigand, Biologist	Pat Metzger, District MCS Captain
Benjamin Nunnallee, Projects Engineer	Andrew White, Surfacing Design
Breta Palmer, District Utility Agent	Patricia Hogan, District Utility Agent
Mark Roedel, District Land Surveyor	James Freyholtz, Kalispell Traffic Engineer